

An Empirical Study of Alleviating Reading Anxiety among Chinese Learners of English

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Yu Lihua & Shin, Dong-Jin. “An Empirical Study of Alleviating Reading Anxiety among Chinese Learners of English.” *Studies in English Language & Literature* 46.3 (2020): 369-389. Research into the relationship between four variables and foreign language reading anxiety by investigating 271 non-English major collage students in the north-west part of China. Data from an English proficiency test, a reading comprehension task and three questionnaires were analyzed by SPSS 21 (e.g., frequency analysis, correlation analysis and Linear regression analysis), which show that 1) the great majority of participants who have the level of medium English proficiency. A small group of them are in high English proficiency level while only four students are in low group. 2) the majority of participants are in medium level of foreign language reading anxiety. 3) there is no correlation between participants’ English proficiency and foreign language reading anxiety. 4) there is a significant positive correlation relationship between foreign language reading anxiety and their cognitive interference. 5) there is a significant relationship among cognitive, metacognitive strategies use and foreign language reading anxiety. 6) there was a significant negative relationship between foreign language reading anxiety and English reading performance. Based on the findings, some implications are discussed in English teaching and learning. (Long Dong University and Jeonju University)

Key Words: foreign language reading anxiety; English proficiency; cognitive interference; cognitive and metacognitive strategies use, an empirical study

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1. Introduction

For several decades, previous studies have investigated the effects of foreign language anxiety (e.g. Horwitz, Horwitz & Cope, 1986; Ismail, 2015). Anxiety have profound effects on students' foreign language learning. In the north-west part of China, reading is one of the most important skills that students have to master. This is reflected on their final examinations and English proficiency tests. However, as was the case in several previous studies, foreign language reading seems to have great potential for provoking anxiety (Saito, Garza & Horwitz, 1999). Reading anxiety seems to be a mental block for many students in the process of foreign language reading. A small amount of research have examined that foreign language reading anxiety is negatively associated with reading comprehension (Sellers, 2000; Karbalaei, & Sannati, 2015) and foreign language reading performance (Zhao, Guo & Dynia, 2013; Rajab, 2012; Zin & M, 2010). Jin, Bot and Keijzer (2015) pointed out that anxiety had a negative significant on speaking and reading in English or Japanese. In addition, Çapan and Pektas (2013) has examined the link between reading anxiety of target language and reading strategy training. Song (2018) has suggested that highly anxious students were more focused on local reading strategies while less anxious students tended to use more global reading strategies. However, not much research can be found on reading anxiety and cognitive and metacognitive strategies use in the same SL/FL context. The current study examined the relationships among foreign language reading anxiety and four variables including students' English proficiency, cognitive and metacognitive strategies, cognitive interference and reading performance. For the purpose of this study, the research questions were posed as follows:

1. What level of English proficiency do the participates have?
2. Do the participants have anxiety during reading in a foreign language, and what level of foreign language do they have?

3. Does the level of foreign language reading anxiety decrease with higher English proficiency?
4. How does the students' foreign language reading anxiety relate to cognitive interference?
5. Is there any significant correlation among cognitive and metacognitive strategy use and reading anxiety?
6. What is the relationship between English reading anxiety and reading achievement?

2. Literature review

2.1 Anxiety and foreign language learning/second language learning

Anxiety is a significant variable to prevent some people from performing successfully in foreign language learning. It is described as a palpable but transitory emotional condition or state in psychology which is the subjective feeling of worry, apprehension and tension related with an autonomic nervous system (Spielberger, 2010). The effect of anxiety on foreign language learning was demonstrated in more detail by Horwitz. et al. (1986). The foreign language learners experience worry, apprehension and even dread so that they can not concentrate on their learning and have a feeling of forgetfulness, sweat and palpitation. They defined three components of foreign-language anxiety which refers to communication apprehension, fear of negative evaluation and test anxiety. Results from studies on foreign language learning and anxiety showed that anxiety has negative relationship with language achievement (Hewitt & Stephenson, 2012; Sarason, 1984; Saito, 1996; Zhang, 2013; ; Valizadeh & Alavinia, 2013). For example, Sarason (1984) stated that highly anxious students have a low performance with high levels of task-irrelevant thoughts. Compared with less anxious learners, high anxious learners seem to have more off-task thoughts including fear of negative evaluation from

peers, self-evaluation or other thoughts aroused by anxiety (Song, J, 2020). Researchers working from cognitive psychology perspective found that anxiety has negative role on cognitive processing in learning a foreign language (Sarason, 1984). Wine (1971) showed that the low anxious learners concentrate on his task, whereas the high anxious learners divide his attention on task-relevant activities and task-irrelevant activities such as self-evaluation, self-deprecatory thinking and worry. These cognitions distract anxious learners from their task at hand and interfere their cognitive. In a review of studies represented that anxiety plays a negative role in language learning by task-irrelevant thoughts. It is necessary to pay more attention to alleviate anxiety because task-irrelevant thoughts caused by anxiety which likely hinder comprehension process in foreign language learning.

2.2 Anxiety and foreign language reading

Research on foreign language anxiety has been conducted for many years. Saito et al. (1999) pointed out that foreign language reading anxiety was a separate and distinct phenomenon from general foreign language. Matsuda and Gobel (2004) presented that foreign language reading anxiety is different from foreign language anxiety. The findings showed that the former is very specific and independent with the latter. Wu (2011) further examined that there is a related but distinguishable relationship between foreign language anxiety and foreign language reading anxiety by investigating 91 college students in Southern Taiwan. Foreign language anxiety is distinguished from reading anxiety because they are two different phenomena during learning. The relation between of them is due to recognize the students with language anxiety, they might have reading anxiety too. Over the decades, research on anxiety and foreign language reading has been flourishing. Researchers have found that many students experience reading anxiety in a foreign language(Saito, Garza & Horwitz, 1999; Sellers, 2000; Ismail, 2015; Song, 2020). The predominantly employed instrument in most studies to measure foreign language

reading anxiety is FLAS (Foreign Language Reading Anxiety Scale) by Saito et al. (1999). They introduced the construct of foreign language reading anxiety and examined the levels of reading anxiety experienced by Spanish, Russian, and Japanese learners. The result found that the levels of reading anxiety varied by different target language. Students of French had the highest reading anxiety, followed by the Japanese and Russian students. The levels of reading anxiety seemed to be provoked by specific writing systems. In addition, they found that there is a significant correlation between reading anxiety and grades. Students with higher reading anxiety received lower scores.

As introduced in previous study, foreign language reading anxiety exist and even have a significant impact on learners. It can hinder learner from comprehension and acquisition during reading. What are the sources caused anxiety in the process of foreign language reading? Reading process is multi-dimensional and complex. Anxiety has been investigated as an important factor which could impede the reading process. There are several factors that would be provoke reading anxiety among foreign language learners which are unfamiliar cultural materials, unfamiliar scripts and writing systems (Saito et al., 1999). Unfamiliar cultural concepts might hinder learners' reading comprehension process, because learners could not decode the message which is foreign to them. Learners would become anxious when they could decipher the words of foreign language reading material but they still could not understand the meaning. Unfamiliar writing systems could cause more anxiety for learners because foreign language writing systems are different from learners' first language in terms of word pronunciation and sentence structures. Fan and Wang (2013) examined 400 English and non-English major students to investigate the factors of English reading anxiety. The results revealed that culture, vocabulary and meta-cognitive ability are the most important factors which caused learners' reading anxiety. Ismail (2015) investigated the main sources of the reading anxiety based on 72 secondary school students in a huge public female secondary school. It was found that limited vocabulary and grammar knowledge are the factors which impact

students' reading anxiety when they read in a foreign language.

The research on the relationship between anxiety and achievement has been conducted. Foreign language classroom anxiety was found to have a significantly negative relationship with English achievement (Ghorbandordinejad & Ahmadabad, 2016). In addition, Horwitz et al. (1986) divided foreign language classroom anxiety scale into three subscales according to performance anxiety which are communication apprehension, test anxiety and fear of negative evaluation. Ghorbandordinejad and Ahmadabad, (2016) examined the relationship between English score and FLCAS score of three-subscale. The results showed that students with low English achievement tend to have higher communication apprehension and test anxiety than fear of negative evaluation from the teacher and others.

2.3 Anxiety and language learning strategies

Many researches on language learning strategy use showed that successful language learners tend to employ language learning strategies efficiently and choose the strategies appropriate to deal with their language task. (Bremner, 1999; Lu & Liu ; 2011) According to Oxford (1990), language learning strategies can be divided into six categories which are memory, cognitive, metacognitive, compensation, affective and social. Among of them, cognitive strategies relate to manipulate or transform the target language while metacognitive strategies refers to help learners to regulate their learning.

The evidence showed that there is a link among anxiety, cognitive and metacognitive strategy use. Verson (1994) found that the participants with less anxious who have higher levels of metacognitive word knowledge and higher reading test scores. Lu and Liu (2011) examined there is a significant correlation among cognitive strategy use, metacognitive strategy use and foreign language classroom anxiety. This findings are different from those of previous study which is showed that cognitive, compensation and social strategies have significant

relationship with language anxiety while metacognitive, memory, and affective strategies had no correlation with English language classroom anxiety (Mohammadi, 2013). They also pointed out that the more general language learning strategies use, the less amount of English language classroom anxiety have. The findings are similar to those in the study of Noormohamadi (2009) which suggested that the students are more anxious, the strategies are less used. He also found that high anxious students tend to use metacognitive and memory strategies more than compensation and affective strategies while low anxious students used metacognitive and social strategies more than memory, and affective strategies. Lu and Liu (2011) examined the relationship among anxious, performance and language strategies use and found that high anxious students will have poor English performance but if they employed cognitive or metacognitive strategies more they will perform better in English.

In sum, it seems that language learning strategies is closely connected with foreign language anxiety and language performance. According to Saito et al. (1999), foreign language reading anxiety is related to, but separated from general foreign language. The present study has addressed the meta-cognitive and cognitive strategies, and their effects on foreign language reading anxiety.

3. Methods

3.1 Participants

The participants are 272 non-English major undergraduate students from various majors such as Nursing, Law, Education Science, Geography, Computer Science and Technology in the north-west part of China. Sixty-six (24%) participants were male and the remaining 206 (76%) were female. All of them were sophomores who studied English as a second language for at least eight years and their ages ranged

from 19 to 24. None of them have been visited English-speaking countries. They had four English classes each week for four semesters in collage. These respondents participated voluntarily.

3.2 Epistemics

The data were collected in their regular English classes and it takes about 100 minutes totally. All the 272 students from 6 classes were asked to finish the writing and listening part in 60 minutes and then to read 4 passages and answered questions in 40 minutes. This process was monitored by their English teachers whom I invited to help me control the quality of data collection. Immediately after, they filled a background questionnaire such as gender, age, major and other basic information, and other three questionnaires included FLRAS, strategy use questionnaire, and CIQ. Before they completed the questionnaire, they were told that these questionnaires would have no effect on their achievements.

3.2 Instrument

This study involved four sources of data: 1) CET-4 test and Reading Subtest 2) Foreign Language Reading Anxiety Scale (FLRAS) 3) Strategy Use Questionnaire 4) Cognitive Interference Questionnaire (CIQ) In order to avoid misunderstanding and collect invalid data, the questionnaire was translated into Chinese and checked by other colleagues. All of translated questionnaires were calculated by SPSS 21 and showed reliability well.

1) CET-4 Test and Reading Material.

To measure students' English proficiency, this study was adopted the published version of College English Test 4 (CET 4) in December 2019. CET administered by National College English Testing Committee including two levels: Band 4 and Band

6. It consists of both written and oral tests which was used to test students' level of writing, listening, reading and speaking. CET-4 test paper was chosen because it were assumed to be valid. To measure students' English reading proficiency, four reading passages selected from this test paper. It comprises 40 items, including 10 banked cloze items, 10 skimming and scanning items and 20 items measuring reading in depth. participants were required to complete the reading test within 40 minutes.

2) Foreign Language Reading Anxiety Scale (FLRAS)

The FLRAS was developed by Saito et al. (1999) used to measure the anxiety that students suffered in the process of foreign language reading. It contains 20-item and each of which is answered according to 5-point scale ranging from 'strongly agree' to 'strongly disagree'. According to Cronbach's alpha test, the FLRAS had an internal consistency reliability of .871, rated as a reliable index when 271 students were tested.

3) Strategy Use Questionnaire.

Phakiti's questionnaire (2006) was employed to measure the participants' reported strategy use in the process of reading. The questionnaire contains 30 items designed on a 5-point Likert scale: 1(Never), 2 (Sometimes), 3 (Often), 4 (Usually), and 5 (Always). 13 items belongs to cognitive strategies and 17 items refers to meta-cognitive strategies. The cognitive strategies construct is composed of comprehending, memory and retrieval strategies, whereas the meta-cognitive strategy construct is constituted with planning, monitoring and evaluating strategies. The reliability of the translated questionnaire, calculated by SPSS21, turned out to be .906.

4) Cognitive Interference Questionnaire (CIQ)

Cognitive Interference Questionnaire (CIQ) was developed by Sarason (1986) which used to measure participants' task-irrelevant thoughts caused by anxiety during performing a reading task. The questionnaire contains 21 items and each of

which is answered according to 5-point Likert scale ranging from 1=never to 5=very often. All subjects were required to complete the questionnaire and indicated how frequent each thought reminded during performing a reading task. The score participants got on the questionnaire represented the degree of task-irrelevant thoughts they experienced during reading. After Cronbach's alpha test, the CIQ had an internal consistency reliability of .943.

4. Results

The first research question aims at investigating the level of English proficiency the participants have. Frequency analysis method was used in table 1 to analyze the students English proficiency by CET4's scores.

	English proficiency group	Number	Percentage	Significant percentage	Accumulate percentage
CET4's scores	Low	4	1.5	1.5	1.5
	middle	248	91.5	91.5	93
	high	19	7	7	100

Table 1. Frequency analysis of CET4' s scores (N=271)

In order to describe what level of English proficiency the participants have, I divided them into three groups which are low-, middle- and high English proficiency group in this section. As shown in Table 1, only 1.5% students are in low English proficiency group while 91.5% students fall into medium English proficiency group. The rest of 7% students have high proficiency level. The result shows that the great majority of students with medium English proficiency level. A small group of students are in high English proficiency level while only four students have poor English proficiency.

The second research question relied on descriptive statistics and frequency

analyses of FLRAS to identify the level of foreign language reading anxiety the participants have. As shown in Table 2, the range of the scores in this study was from a minimum of 1 to a maximum of 4.15. The mean value of reading anxiety is 2.56 and the standard deviation is 0.518. The mean score of FLRAS indicates that the Chinese collage non-English major students did suffer from foreign language reading anxiety and the anxiety level is only moderate.

	N	Min	Max	Mean	SD
FLRAS	271	1.00	4.15	2.56	0.51

Table 2. Descriptive statistics of FLRAS (N=271)

	Anxiety group	Number	Percentage	Significant percentage	Accumulate percentage
FLRAS	Low	79	29.2	29.2	29.2
	middle	187	69	69	98.2
	high	5	1.8	1.8	100

Table 3. Frequency analysis of FLRAS (N=271)

Based on the minimum (Min=1) and maximum (Max=4.15) scores of the FLRAS, We conducted the further analysis to examine which anxiety groups the students belong to. The frequency analyses for questionnaire data are presented in Table 3. According to the level of anxiety the students suffered, they can be divided into three reading anxiety groups. 29.2% of the students are fall into the low anxiety group while 69% of them are in the moderate anxiety group. Otherwise, Only 1.8% of them belong to the high anxiety group. This is probably because the majority of the students participated in this study have medium English proficiency level. Though some students may not be good at English or even they are not familiar with foreign language history and culture, Chinese students generally learn English from third grade in primary school. They have mastered a certain of vocabulary and grammatical structures so that they could finish the reading task not bad in some extent. The

results are similar to those found in Sellers (2000) which indicated that 17% subjects were in the low anxiety group while 65% of them were in the moderate anxiety group. Eighteen percent of students were in the high anxiety group. The majority of students are in medium level of foreign language reading anxiety.

The third research question asked whether there is a relationship between students' English proficiency and FL reading anxiety. The results are shown in Table 4.

		FLRAS	CET4 scores
FLRAS	Pearson Correlation	1	-.103
	Sig. (2-tailed)		.091
	N	271	271
CET4 scores	Pearson Correlation	-.103	1
	Sig. (2-tailed)	.091	
	N	271	271

Table 4. Correlation between Students' English proficiency and FL Reading Anxiety

To determine the correlation between students' English proficiency and FL reading anxiety, Pearson correlation test was conducted. As noted in table 4, the correlation co-efficient between students' English proficiency and FL reading anxiety is $r = -.103$, $p > 0.05$. The significant 2-tailed value of the Pearson Correlation is 0.91 which shows that the correlation is no significant as the value is more than 0.05. It indicated that there is no correlation between students' English proficiency and FL reading anxiety. Interestingly, the result is completely inconsistent with the assumption which the level of foreign language reading anxiety might decrease with higher English proficiency level. That is to say, students' English proficiency level does not impact to their foreign language anxiety.

To test the fourth research question, we calculated Pearson's correlation test to investigate the relationship between foreign language reading anxiety and cognitive interference.

		FLRAS	CIQ
FLRAS	Pearson Correlation	1	.259**
	Sig. (2-tailed)		.000
	N	271	271
CIQ	Pearson Correlation	.259**	1
	Sig. (2-tailed)	.000	
	N	271	278
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 5. Correlation between Students' FLRAS and CIQ

As it is illustrated in Table 5, the correlation co-efficient between foreign language reading anxiety and cognitive interference is $r = .259$, $p < .01$. The Pearson correlation indicates that there is a significant positive correlation relationship between the students reading anxiety and their cognitive interference. The result presented that the students have more anxiety, the level of cognitive interference is also high and vice versa.

The fifth research question aims at investigating the relationship among cognitive, metacognitive strategies use and foreign language reading anxiety by linear-regression analyses.

	DV	predictor	B	t	Total R2	Total F	sig.
Cognitive strategies	understanding	FLRAS	0.22	3.62	0.047	13.13	$p < .01$
	memory		0.17	3.07	0.034	9.47	$p < .01$
	retrieval		0.24	3.57	0.045	12.80	$p < .01$
Meta-cognitive strategies	planning		0.23	3.73	0.049	13.97	$p < .01$
	monitoring		0.24	3.90	0.054	15.25	$p < .01$
	evaluating		0.26	4.23	0.062	17.92	$p < .01$

Table 6. Regression among Cognitive, Metacognitive Strategies Use and Foreign Language Reading Anxiety

The participants' foreign language reading anxiety scores were taken as dependent variables, while cognitive and meta-cognitive strategies were taken as a predictor variable including comprehension, memory, retrieval, planning, control and evaluation. Foreign language reading anxiety was a significant predictor for

understanding (B = 0.223), memory(B = 0.167), petrieval(B = 0.228), planning (B = 0.226), monitoring(B = 0.242), evaluating(B = 0.269), suggesting that anxious students used metacognitive strategies more than cognitive strategies.As showed in Table 6, the correlation among cognitive, metacognitive strategies use and reading anxiety is $p < 0.05$ which indicated that there is a significant negative linear relationship among of them. The results shows that the students use more cognitive strategies and metacognitive strategies in their reading process, they are less anxious.

The sixth research question refers to the relationship between foreign language reading anxiety to reading performance.The results are shown in Table 7.

Linear regression analysis			
		FLRAS	Reading Performance
FLRAS	Pearson Correlation	1	-.234**
	Sig. (2-tailed)		.000
	N	271	271
Reading Performance	Pearson Correlation	-.234**	1
	Sig. (2-tailed)	.000	
	N	271	271
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 7. Correlation between Foreign Language Reading Anxiety and Reading Performance

Going along with the forth research question, Pearson correlation was conducted to explore the relationship between FL reading anxiety and reading performance. The results from Pearson correlation between FL reading anxiety to reading performance are revealed in Table 5. There was a significant negative relationship between FLRAS scores and English reading performance($r = -0.234$, $p = .000$, $n = 271$),which shows that the more students anxious , the lower reading performance they get during reading in English. Similarly, if the students are less anxious, the higher reading performance they will get. This results is different from those founded in Rajab (2012) which reported there is no statistically significant link between reading anxiety and reading performance. $P = 0.981$ shows that the students' anxiety level can not have big impact or no impact on their reading performance.

5. Discussion

This study examined the level of foreign language reading anxiety experienced by Chinese non-English major students, and investigated the correlation among anxiety and other variables including students' English proficiency, Cognitive Interference, reading strategies and reading achievement. The findings revealed foreign language reading anxiety plays an important role in reading process.

The study shows that there is no relationship between the students' foreign language reading anxiety and English proficiency. Interestingly, it is inconsistent with the assumption. This result is also inconsistent with which of Jin(2015) who found that anxiety had a weak negative correlation with reading or speaking proficiency in English and Japanese. MacIntyre and Gardner (1989) has investigated the connection between foreign language anxiety and proficiency in communicative situations and found there is a clear relationship exists between both of them. The result showed in the present study might be attributed to the fact that most of Chinese students started to learn English from primary school and they have been paying more attention to the learning of English. The other reason is the majority of participants have medium and high English proficiency.

The results revealed a positive correlation between foreign language reading anxiety and cognitive interference, which means that students' with higher level of language anxiety tended to have more higher task-irrelevant thoughts during reading. It seemed that most students often have some off-task thoughts such as "I thought about something that happened in the recent past," "I thought about personal worries," "I thought about what the teacher and classmates would think of me" etc. when they feel more anxious during reading in English. It showed that anxious students are more worried about negative evaluative from teacher, classmates and parents. They often have some task-irrelevant thoughts in their mind during reading which interfered more with anxious readers. As described by Liebert, and Morris (1967) and Horwitz et al. (1986), cognitive factors related to worry, lack of

confidence or fear of negative evaluation. The findings in this section are consistent with the results of other studies in that of Song (2018) study in which it is reported a positive correlation between these two variables. The findings are also consistent with those of Comunian (1993) who found a positive correlation between cognitive interference and test-anxiety as well as school performance by investigating 300 Italian children. Furthermore, the findings are in agreement with Kurosawa and Harackiewicz (1995) investigation which revealed a positive correlation between test anxiety and cognitive activity by examining 96 female students recruited from introductory psychology classes in a women's college.

As revealed in the present study, foreign language reading anxiety was significantly negative correlated with cognitive, metacognitive strategies use. It means that students use reading strategies effectively will alleviate their English reading anxiety and improve their reading achievements. Results from students' strategies use showed that most anxious students are used to employ metacognitive strategies more especially in planning and evaluation. As for the cognitive strategies, They showed that they used to comprehend the reading task by looking at the pictures or reading the titles of the texts, translating the reading content into Chinese, making short notes or underlining main ideas. Lu and Liu (2011) pointed out that there is a significant correlation among cognitive strategy use, metacognitive strategy use and foreign language classroom anxiety. The students had a medium use of cognitive strategies including analyzing and reasoning, and receiving and sending messages while they had a medium use of metacognitive strategies including arranging and planning. The findings are also similarly with the results of Stewart, Seifert and Rolheiser (2015) which found students' writing anxiety and self-efficacy had a statistically significant association with their perceptions of using metacognitive writing strategies. They also pointed out that students enhance metacognitive writing strategies use might reduce anxiety and increase their self-efficacy, and improve student writing outcomes. Thus, the use of cognitive, metacognitive strategies could be effective factors to alleviate foreign language

reading anxiety and improve student' reading performance.

The study pointed out foreign language reading anxiety had a negative relationship with reading performance. It means that students who have higher anxiety may not be efficient in getting their desired performance in English reading. It can be explained by the fact that foreign language reading anxiety leads to low reading performance. The findings support many other studies which have found that there is a negative correlation between language performance and foreign language anxiety by 331 students in the north-west part of Turkey. ((Horwitz, et al. 1986; Horwitz, 2001; Zin, 2010; Ghorbandordinejad and Ahmadabad, 2015; Demirdaş and Bozdoğan, 2013). The findings seem to be consistent with that of Zhao et al. (2013) study which showed that there is a negative correlation between foreign language reading anxiety and foreign language performance by 331 students in the north-west part of Turkey. They defined that worry, unfamiliar scripts and unfamiliar topics are the major sources of foreign language reading anxiety. These factors could be caused reading anxiety, as showed in the study of Saito et al. (1999). they also suggested that target language and the specific writing systems seem to be are main factors affected the levels of reading anxiety. These results are similar with the finding in the present study which are reported that reading material and less strategy use seem to be the factors caused foreign language reading anxiety. Practice more is very considerable. The students reported that it is not difficult for them to read in English after more reading practice. As for these participates, they have never been to any other foreign countries. Reading more material is a good way to familiar with English culture and ideas.

6. Conclusion

The present study was designed to examine the effect of foreign language reading anxiety on English proficiency, cognitive and metacognitive strategy use, cognitive

interference and English performance. The conclusions can be drawn as follows:

First, this study examined the English proficiency of Chinese non-English major students and the findings showed the majority of students are in medium or high level expect 1.5% participants. That might be because they have learned English from primary school. Second, the majority of the participants experienced medium and low foreign language reading anxiety while 1.8% participants are in high level. Third, The findings showed that students' English proficiency has no meaningful correlation on reading anxiety. Interestingly, the result is different from the assumption of this research as well as the finding of Jin, et al. (2015). Fourth, It can also be concluded that reading anxiety is partially affected by cognitive interference. The findings implied that the most anxious participants often have some task-irrelevant thoughts. They often think about the evaluation from family or classmates, or some things happened in the recent past. Fifth, the results suggested that students use cognitive and metacognitive strategies can alleviate their anxiety during reading. The participants tend to use metacognitive strategies more than cognitive strategies. Sixth, The findings explored that reading performance affected by foreign language reading anxiety to a large extent. The anxiety are mainly caused by unfamiliar material and foreign culture as showed in the present study.

However, here are several limitations need to be discussed. The data was collected by three questionnaires including foreign language reading anxiety scale, cognitive interference questionnaire and strategies use questionnaire. It might have some limitation in collecting data by employing this method. In addition, the reading material is selected from CET4 which could be biased in certain ways. Though CET4 is administered by National College English Testing Committee and it were assumed to be valid. Different type of materials could have better reflected a student's English reading performance in a objective perspective.

Despite this limitation, the findings of the present study have some pedagogical implications for teaching and learning in foreign language. This study reported that the majority of the participants experienced medium level of anxiety. It is necessary

to broaden their eyes on foreign language reading anxiety to understand the variables which can alleviate reading anxiety such as mentioned in the present study. In addition, It is also necessary for both teacher and students to alleviate reading anxiety by taking measures such as building a relaxing environment, encouraging, praising anxious students more often or helping them more confident. As suggested by Matsuda and Gobel (2004), teachers need create a pleasant atmosphere and encourage students to take part in classroom activities so as to enhance their self-confidence and reduce anxiety. Finally, teachers and students should pay more attention to use language learning strategies appropriately to alleviate anxiety.

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